

550547

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
25 November 2004 (25.11.2004)

PCT

(10) International Publication Number
WO 2004/102204 A1

(51) International Patent Classification⁷: **G01N 35/08**, 1/38

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:
PCT/NZ2004/000086

(22) International Filing Date: 7 May 2004 (07.05.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
NZ 525969 16 May 2003 (16.05.2003) NZ

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(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/102204 A1

(54) Title: METHOD AND APPARATUS FOR MIXING SAMPLE AND REAGENT IN A SUSPENSION FLUID

(57) Abstract: Discrete samples (13, 13a) are introduced into a mixing chamber containing a carrier fluid (5), so that the samples (13, 13a) move from an inlet (4) to an outlet (7) of the mixing chamber. One or more reagents (12, 12a, 14, 14a) are also introduced into the mixing chamber, which move from the inlet (4) to contact and mix with the corresponding samples (13, 13a) at a location (15) in the mixing chamber, to form respective processed samples (16, 16a, 16b, 16c) for further processing or analysis. The location of contact (15) is predetermined by predetermining the rate of movement of the samples (13, 13a) and of each reagent (12, 12a, 14, 14a). The method and apparatus permit rapid automated processing, are suitable for very small sample and reagent volumes (eg, 100 nanolitres), and minimize contamination.